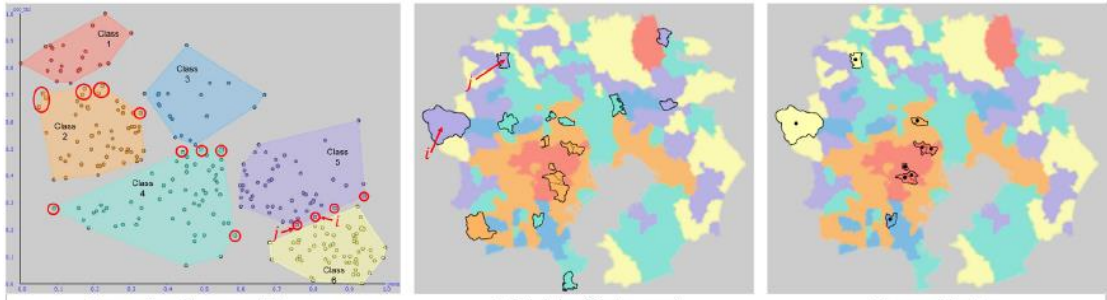


本周工作：

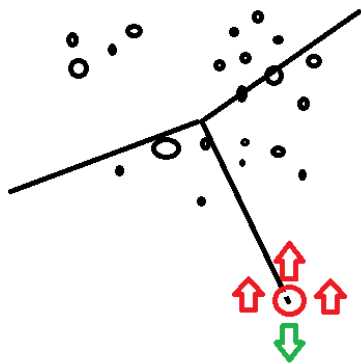
- 与 Ross 见面并安装需要应用的编程，写作环境。
- 讨论 Idea。与 Ross 讨论了关于地图上聚类边界点，改变边界类型对可视化造成的影响的工作，希望在这个方向有新的 idea。主要基于《Quantifying the Visual Impact of Classification Boundaries in Choropleth Maps》一文，本文介绍了一种对于区域种类变化之后，对可视化的整体可视分析造成的影响的评判方法。通过改变，得到更加合理的地理分类结果。之前是 Kmeans 的应用。先准备用于 T-SNE。



我对这方面研究进行了调研。

The first one is <cluster aware star coordinates> written by kang feng. This paper propose an interactive way (drag and drop) to manually adjust the feature vector during projection. By using some measure of projection results, they encode the effect on drag direction (as shown below, when dragging vector with the red circle, red arrows mean the result will be better, and greens mean the result will be worse) to help user know what will happen if they drag the vector.

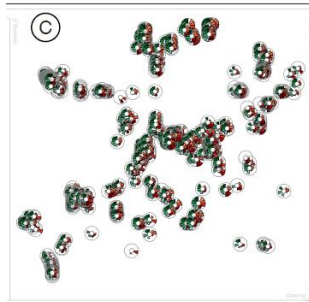
In the project, maybe we can try some method to visualize the effect after changing one element's class.



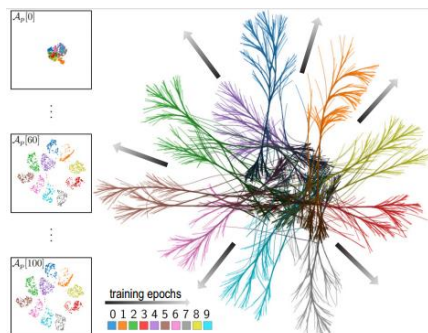
<axisketcher: interactive nonlinear axis mapping of visualizations through user drawings>

This technique enables users to impose their domain knowledge on a visualization. The proposed interaction is performed through directly sketching lines over the visualization. Using this technique, users can draw lines over selected data points, and the system forms the axes that represent a nonlinear, weighted combination of multidimensional attributes.

Maybe different views can be used to show the data by using different projection method.



And <Visualizing the Hidden Activity of Artificial Neural Networks> Using trajectories to show the changes of the points during iteration. Historical information may help user to reclassify map elements.



- 硕士的 PPT，本周二制作好了 PPT。
- 和这边的 zhangrui 博士讨论她的项目。她最近在做一个关于环保的项目，她的项目当中，需要把美国整个国家的环境保护区进行可视化，按照每 30 米一步，考虑小方格内的环保价值。她的难点在于数据量比较大，精度比较高，难以交互和实时渲染。我们讨论了用整个后台处理图片进行加载和 canvas 加速两种解决方案。她去尝试了。
- 英语方面，感觉听力进步很大 0.0.....